Naval Personnel Development Command
NAVEDTRA 43341-E
Oct 2005

PERSONNEL QUALIFICATION STANDARD

FOR

DECOY LAUNCHING SYSTEM (DLS)

NAME (Rate/Rank)_____

Although the words “he”, “him,” and “his” are used sparingly in this manual to enhance communication, they are not intended to be gender driven nor to affront or discriminate against anyone reading this material.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

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INTRODUCTION

PQS PROGRAM

This PQS program is a qualification system for officers and enlisted personnel where certification of a minimum level of competency is required prior to qualifying to perform specific duties. A PQS is a compilation of the minimum knowledge and skills that an individual must demonstrate in order to qualify to stand watches or perform other specific routine duties necessary for the safety, security or proper operation of a ship, aircraft or support system. The objective of PQS is to standardize and facilitate these qualifications.

CANCELLATION

This Standard cancels and supersedes NAVEDTRA 43341-D.

APPLICABILITY

This PQS is applicable to all ships with decoy launching systems.

MODEL MANAGER

The Model Manager Command manages a specific PQS manual. This includes overseeing the process of monitoring and updating assigned PQS manuals from the standpoint of technical content and relevance within the community.

TAILORING

To command tailor this package, first have it reviewed by one or more of your most qualified individuals. Delete any portions covering systems and equipment not installed on your ship, aircraft or unit. Next, add any line items, fundamentals, systems and watchstations/workstations that are unique to your command but not already covered in this package. Finally, the package should be reviewed by the cognizant department head and required changes approved by the Commanding Officer or his designated representative. Retain the approved master copy on file for use in tailoring individual packages.

INTRODUCTION (CONT'D)

QUALIFIER

The PQS Qualifier is designated in writing by the Commanding Officer to sign off individual watchstations. Qualifiers will normally be E-5 or above and, as a minimum, must have completed the PQS they are authorized to sign off. The names of designated Qualifiers should be made known to all members of the unit or department. The means of maintaining this listing is at the discretion of individual commands. For more information on the duties and responsibilities of PQS Qualifiers, see the PQS Unit Coordinator's Guide.

CONTENTS

PQS is divided into three sections. The 100 Section (Fundamentals) contains the fundamental knowledge from technical manuals and other texts necessary to satisfactorily understand the watchstation/workstation duties. The 200 Section (Systems) is designed to acquaint you with the systems you will be required to operate at your watchstation/workstation. The 300 Section (Watchstations) lists the tasks you will be required to satisfactorily perform in order to achieve final PQS qualification for a particular watchstation/workstation. All three sections may not apply to this PQS, but where applicable, detailed explanations are provided at the front of each section.

REFERENCES

The references used during the writing of this PQS package were the latest available to the workshop, however, the most current references available should be used when qualifying with this Standard.

NOTES

Classified references may be used in the development of PQS. If such references are used, do not make notes in this book as answers to questions in this Standard may be classified.

TRAINEE

Your supervisor will tell you which watchstations/workstations you are to complete and in what order. Before getting started, turn to the 300 Section first and find your watchstation/workstation. This will tell you what you should do before starting your watchstation/workstation tasks. You may be required to complete another PQS, a school, or other watchstations/workstations within this package. It will also tell you which fundamentals and/or systems from this package you must complete prior to qualification at your watchstation/workstation. If you have any questions or are unable to locate references, contact your supervisor or qualifier. Good luck!

PQS FEEDBACK REPORTS

This PQS was developed using information available at the time of writing. When equipment and requirements change, the PQS needs to be revised. The only way the Learning Center Model Manager knows of these changes is by you, the user, telling us either in a letter or via the Feedback Report contained in the back of this book. You can tell us of new systems and requirements, or of errors you find.

SUMMARY OF CHANGES

CHANGES TO FUNDAMENTALS, SYSTEMS, AND WATCHSTATIONS:

Fundamental Title	**Action**	**Comment**
100 (Series)	Removed	Removed MK 50
101	Modified	Added Chaff Removal
102	Modified	Added Nulka/Giant
103	Modified	Added Nulka/Giant
104	Modified	Added Nulka/Giant
106	Added	Added MK 53 DLS
107	Modified	Added Nulka/Removed Decoys

System Title	**Action**	**Comment**
200 (Series)	Removed	Removed MK 50 DLS
201	Removed	Removed MK 158
203	Modified	Added Nulka

Watchstation Title	**Action**	**Comment**
300 (Series)	Removed	MK 166 Team Member
300 (Series)	Removed	MK 166 Team Leader
300 (Series)	Removed	MK 158 Operator
301	Modified	Added Nulka
304	Modified	Added Nulka
305	Modified	Added Nulka Procedures

WATCHSTATION REQUALIFICATIONS

Due to changes in policies, systems, or procedures, personnel dealing with the subject matter of this PQS may be required to requalify IAW NAVEDTRA 43100.1F, PQS Unit Coordinator's Guide.

The following watchstations regardless of qualifications achieved in previous versions, shall be completed.

None.

ACRONYMS USED IN THIS PQS

Not all acronyms or abbreviations used in this PQS are defined here. The Subject Matter Experts from the Fleet who wrote this Standard determined the following acronyms or abbreviations may not be commonly known throughout their community and should be defined to avoid confusion. If there is a question concerning an acronym or abbreviation not spelled out on this page or anywhere else in the Standard, use the references listed on the line item containing the acronym or abbreviation in question.

CIC	Combat Information Center
DLP	Decoy Launch Processor
DLS	Decoy Launching System
HERP	Hazard of Electromagnetic Radiation to Personnel
IR	Infrared
ORM	Operational Risk Management
PPS	Processor Power Supply
RCSR	Radar Cross Section Reduction

100 INTRODUCTION TO FUNDAMENTALS

100.1 INTRODUCTION

This PQS begins with a Fundamentals section covering the basic knowledge and principles needed to understand the equipment or duties to be studied. Normally, you would have acquired the knowledge required in the Fundamentals section during the school phase of your training. If you have not been to school or if you need a refresher, the references listed at the beginning of each fundamental will aid you in a self-study program. All references cited for study are selected according to their credibility and availability.

100.2 HOW TO COMPLETE

The fundamentals you will have to complete are listed in the watchstation (300 section) for each watchstation. You should complete all required fundamentals before starting the systems and watchstation portions of this PQS, since knowledge gained from fundamentals will aid you in understanding the systems and your watchstation tasks. When you feel you have a complete understanding of one fundamental or more, contact your Qualifier. If you are attempting initial qualification, your Qualifier will expect you to satisfactorily answer all line items in the fundamentals. If you are requalifying or have completed the appropriate schools, your Qualifier may require you to answer representative line items to determine if you have retained the necessary knowledge for your watchstation. If your command requires an oral board or written examination for final qualification, you may be asked any questions from the fundamentals required for your watchstation.

101 SAFETY PRECAUTIONS FUNDAMENTALS

References:

[a] OPNAVINST 5100.19D, Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat
[b] NAVEDTRA 14325, Basic Military Requirements
[c] Ship's Information Book
[d] NSTM S9086-KC-STM-010/CH-300, Electric Plant General
[e] S0404-AD-URM-010/TUM, Tag-Out User's Manual (TUM)
[f] NAVSEA OP3565, Electromagnetic Radiation Hazards
[g] OPNAVINST 3500.39A, Operational Risk Management
[h] NSTM S9086-S3-STM-010/CH-555V1R9, Procedures for Fighting an Electrical Equipment Fire
[i] NAVSEA SW393-CO-MMM-010/Decoy Launching System MK 53 MODS 1, 3, 4, 5 and 6
[j] NAVSEA SW393-A1-MMM-A10/Decoy Launching System MK 36 MODS 1, 5, 6, 11, 12, 17 Through 19
[k] NAVSEA SW393-A2-MMM-010/LS MK 52 MOD 0/Launching System MK 52 MOD 0

101.1 Explain the procedures to be followed when fighting an electrical fire. [ref. b, ch. 12; ref. h, ch. 555-8.2.2]

_____
(Signature and Date)

.2 Discuss the classes of fire. [ref. h, ch. 555-8.2.2]

_____
(Signature and Date)

.3 Discuss the purpose of main power switches and circuit breakers. [ref. c]

_____
(Signature and Date)

.4 Explain the use of insulating material to protect personnel. [ref. a, ch. C9]

_____
(Signature and Date)

.5 Explain the procedures for removing a victim from an energized circuit. [ref. d]

_____
(Signature and Date)

101 SAFETY PRECAUTIONS FUNDAMENTALS (CONT'D)

101.6 Discuss the procedures for artificial respiration and CPR. [ref. d]

_____
(Signature and Date)

.7 Explain the purposes of the tag-out system. [ref. e, ch. 1]

_____
(Signature and Date)

.8 Explain the purpose of danger/caution tags. [ref. e, ch. 1]

_____
(Signature and Date)

.9 Identify locations of first aid boxes and first aid stations in and near launchers and control panel areas. [ref. c]

_____
(Signature and Date)

.10 Identify cleaning agents used to clean electrical and electronic equipment. [ref. d]

_____
(Signature and Date)

.11 Explain proper electrical and electronic equipment cleaning procedures. [ref. d]

_____
(Signature and Date)

.12 Explain HERO and HERP. [ref. f, ch. 1]

_____
(Signature and Date)

.13 Explain the purpose and requirements for grounding shipboard equipment. [ref. d]

_____
(Signature and Date)

.14 Discuss the concept of ORM. [ref. g]

_____
(Signature and Date)

101 SAFETY PRECAUTIONS FUNDAMENTALS (CONT'D)

101.15 Explain the following as they apply to ORM: [ref. g]

a. Identifying hazards
b. Assessing hazards
c. Making risk decisions
d. Implementing controls
e. Supervising

_____
(Signature and Date)

.16 Discuss the purpose and use of hearing protection: [ref. a]

_____
(Signature and Date)

.17 Discuss the safety precautions required when removing chaff particles, which have been blown back onto the ship: [ref. i; ref. j; ref. k]

_____
(Signature and Date)

102 ORDNANCE SAFETY FUNDAMENTALS

References:

[a] NAVSEA OP 4, Ammunition Afloat
[b] NAVSEA SW393-A1-MMM-A10/MK 36, Launching System MK 36 MODS 1, 5, 6, , 11,12, 17 through 19
[c] NAVSEA SW393-A2-MMM-010/LS MK 52 MOD 0, Launching System MK 52 MOD 0
[d] NAVSEA SW393-CO-MMM-A10/Decoy Launching System MK 53 MODS 1, 3, 4, and 5
[e] COMNAVSURFPAC/LANTINST C3516, Combat Systems Doctrine

102.1 Define the following terms:

a. Cartridge [ref. a, app. A]
b. HERO [ref. a, ch. 2]
c. Misfire [ref. a, app. A]
d. Ordnance [ref. a, app. A]
e. Pyrotechnics [ref. a, app. A]
f. RSL [ref. a, app. A]
g. Solid propellant [ref. a, app. A]
h. Skylarking [ref. e, app. B]

_____
(Signature and Date)

.2 Discuss the safety requirements for the following: [ref. a]

a. Smoking regulations [ch. 3]
b. RSL temperatures [ch. 3]
c. Housekeeping/passageways/exits [ch. 2]
d. Deck covering [ch. 3]
e. Light, spark, heat, or flame-producing device [ch. 2]
f. Atmospheric conditions [ch. 2]

_____
(Signature and Date)

.3 Discuss the safety procedures for the following operations and conditions for the MK 214/MK 216 decoy round: [ref. b, ch. 2; ref. c, ch. 2; ref. d, ch. 2]

a. Loading a launcher
b. Unloading a launcher
c. Misfire

_____
(Signature and Date)

102 ORDNANCE SAFETY FUNDAMENTALS (CONT'D)

102.4 Discuss the safety procedures for the following operations and conditions for the MK 245 MOD 0 IR round: [ref. b, ch. 2; ref. c, ch. 2; ref. d, ch. 2]

a. Loading a launcher
b. Unloading a launcher
c. Misfire

_____
(Signature and Date)

.5 Discuss the safety procedures for the following operations and conditions for the MK 234 EDC: [ref. d, ch. 2]

a. Loading a launcher
b. Unloading a launcher
c. Misfire
d. Dud

_____
(Signature and Date)

.6 Discuss the reason for tagging empty ammunition containers. [ref. a, ch. 6]

_____
(Signature and Date)

.7 Discuss painting out markings on empty containers. [ref. a, ch. 6]

_____
(Signature and Date)

.8 Discuss the ordnance handling command, silence. [ref. e, app. B]

_____
(Signature and Date)

.9 Define the special safety precautions for handling/firing the following decoy cartridges: [ref. b, Safety Summary]

a. MK 214
b. MK 216
c. MK 245 MOD 0
d. MK 234 EDC

_____
(Signature and Date)

103 COMMUNICATIONS FUNDAMENTALS

References:

[a] NAVEDTRA 14325, Basic Military Requirements
[b] Ship's Combat Systems Doctrine

103.1 What are the general telephone talking procedures? [ref. a, ch. 4]

_____
(Signature and Date)

.2 What is the procedure for a circuit test? [ref. a, ch. 4]

_____
(Signature and Date)

.3 Explain the procedures for temporarily leaving the phone circuit. [ref. a, ch. 4]

_____
(Signature and Date)

.4 Explain the procedures for relieving phone talkers. [ref. a, ch. 4]

_____
(Signature and Date)

.5 Explain the procedures for securing from phone talking. [ref. a, ch. 4]

_____
(Signature and Date)

.6 Identify the appropriate phone circuit for the following decoy systems operations: [ref. b]

a. MK 36 system
b. MK 52 system
c. MK 53 system

_____
(Signature and Date)

104 MK 36 DECOY LAUNCHING SYSTEM (DLS) FUNDAMENTALS

References:

[a] NAVSEA SW393-A1-MMM-A10/MK 36, Launching System MK 36 MODS 1, 5, 6, 11, 12, 17 thru 19
[b] Ship's Drawings

104.1 State the following performance capabilities of the MK 36 DLS: [ref. a, ch. 1]

a. Muzzle velocity
b. Launcher capacity
c. Power requirements
d. Firing control stations

_____
(Signature and Date)

.2 Describe the following characteristics of the MK 137 launcher: [ref. a, ch. 1]

a. Number of tubes
b. Elevation angles
    1. MK 137 MOD 1
    2. MK 137 MOD 2
    3. MK 137 MOD 4
c. Controls
d. Indicators
e. Launch tube assembly numbering

_____
(Signature and Date)

.3 Discuss the function and location of the following: [ref. a, ch. 1]

a. Launcher safety switch/launcher safe monitor light
b. Excitation coil
c. Vent holes
d. Locking clamp assembly
e. Magnetic dumbbell

_____
(Signature and Date)

104 MK 36 DECOY LAUNCHING SYSTEM (DLS) FUNDAMENTALS (CONT'D)

104.4 State the storage capacity of the following RSL: [ref. a, ch. 1]

a. MK 5 MOD 2
b. MK 5 MOD 4

_____
(Signature and Date)

.5 Discuss the following MODS to the MK 36 system and identify what MOD is installed on your ship: [ref. a, ch. 1]

a. MOD 1
b. MOD 5
c. MOD 6
d. MOD 11
e. MOD 12
f. MOD 17
g. MOD 18
h. MOD 19

_____
(Signature and Date)

.6 Discuss the function and location of the night illumination installed for the MK 36. [ref. b]

_____
(Signature and Date)

105 MK 52 DECOY LAUNCHING SYSTEM (DLS) FUNDAMENTALS

References:

[a] NAVSEA SW393-A2-MMM-010/LS MK 52 MOD 0, Launching System MK 52 MOD 0
[b] Ship's Drawings

105.1 State the following performance capabilities of the MK 52 DLS: [ref. a, ch. 1]

a. Muzzle velocity
b. Launcher capacity
c. Power requirements
d. Control (firing) station

_____
(Signature and Date)

.2 Describe the following characteristics of the MK 137 launcher: [ref. a, ch. 1]

a. Number of tubes
b. Elevation angles MK 137 MOD 1
c. Controls
d. Indicators
e. Launch tube assembly numbering

_____
(Signature and Date)

.3 Discuss the function and location of the following: [ref. a, ch. 1]

a. Launcher safety switch/launcher safe monitor light
b. Excitation coil
c. Vent holes
d. Locking clamp assembly
e. Magnetic dumbbell

_____
(Signature and Date)

.4 State the storage capacity of the MK 5 MOD 5 RSL. [ref. a, ch. 1]

_____
(Signature and Date)

.5 Discuss the function and location of the night illumination installed for the MK 52. [ref. b]

_____
(Signature and Date)

106 MK 53 DECOY LAUNCHING SYSTEM (DLS) FUNDAMENTALS

References:

[a] NAVSEA SW393-CO-MMM-A10/Decoy Launching System MK 53 MODS 1, 3, 4, and 5
[b] Ship's Drawings

106.1 State the following performance capabilities of the MK 53 DLS: [ref. a, ch. 1]

a. Muzzle velocity
b. Launcher capacity
c. Power requirements
d. Control [firing] stations

_____
(Signature and Date)

.2 Describe the following characteristics of the MK 137 launcher: [ref. a, chs. 1, 2]

a. Number of tubes
b. Elevation angles
    1. MK 137 MOD 1
    2. MK 137 MOD 4
    2. MK 137 MOD 7
    3. MK 137 MOD 8
    4. MK 137 MOD 9
    MK 137 MOD 10
c. Controls
d. Indicators
e. Launch tube assembly numbering

_____
(Signature and Date)

.3 Discuss the function and location of the following: [ref. a, ch. 1]

a. MK 24 MOD 2 DLP
b. MK 174 MOD 1 PPS
c. Launcher safety switch/launcher safe monitor light
d. Excitation coil
e. Vent holes
f. Locking clamp assembly

_____
(Signature and Date)

106 MK 53 DECOY LAUNCHING SYSTEM (DLS) FUNDAMENTALS (CONT'D)

106.3 g. Magnetic dumbbell
h. MK 137 MOD 10 housing assembly
i. Base assembly
j. RCSR panels
k. MK 137 MOD 4 SRBOC tubes

_____
(Signature and Date)

.4 State the storage capacity of the MK 5 MOD 4 RSL. [ref. a, ch. 1]

_____
(Signature and Date)

.5 Discuss the following MODS to the MK 53 system and identify what MOD is installed on your ship: [ref. a, ch. 1]

a. MOD 1
b. MOD 3
c. MOD 4
d. MOD 5
e. MOD 6

_____
(Signature and Date)

.6 Discuss the function and location of the night illumination installed for the MK 53. [ref. b]

_____
(Signature and Date)

107 DECOYS FUNDAMENTALS

References:

[a] NAVSEA SW393-A1-MMM-A10/MK 36, Launching System MK 36 MODS 1, 5, 6, 11,12,17 through 19
[b] NAVSEA SW393-A2-MMM-010/LS MK 52 MOD 0, Launching System MK 52 MOD 0
[c] NAVSEA SW393-CO-MMM-A10/Decoy Launching System MK 53 MODS 1, 3, 4, and 5 and 6
[d] NAVSEA OP 2211, Surface Rockets

107.1 Discuss the diameter, height, weight, color code, handle type, and cartridge propelling charge for the following decoys used with the MK 36/52/53: [ref. a, ch. 1; ref. b, ch. 1; ref. c, ch. 1; ref. d, ch. 3]

a. MK 110 MOD 0
b. MK 191 MOD 0
c. MK 214 MOD 0
d. MK 216 MOD 0
e. MK 229 MOD 0
f. MK 232 MOD 0
g. MK 234 MOD 1
h. MK 245 MOD 0

_____
(Signature and Date)

.2 Identify the following parts of a decoy cartridge round: [ref. d, ch. 3]

a. Barrel extension
b. Fins
c. Firing coil

_____
(Signature and Date)

.3 Identify the following components or units of an electronic decoy cartridge round (MK 234): [ref. c, ch. 1]

a. Propulsion unit
b. Flight control unit
c. Payload unit
d. Spin control unit

_____
(Signature and Date)

107 DECOYS FUNDAMENTALS (CONT'D)

107.4 Identify the following assemblies of the electronic decoy canister (MK 234): [ref. c, ch. 1]

a. Canister sleeve assembly
b. Lower end assembly
c. Top cap assembly
d. Umbilical cable

_____
(Signature and Date)

.5 Identify the following components of the MK 245 giant IR decoy cartridge: [ref. d, ch. 3]

a. Top cap
b. Submunitions
c. Propellant
d. Inductive coil

_____
(Signature and Date)

200 INTRODUCTION TO SYSTEMS

200.1 BASIC BUILDING BLOCKS

In this section, the equipment is broken down into smaller, more comprehensible, functional systems as basic building blocks in the learning process. Each system is written to reflect specific watchstation requirements by identifying the equipment most relevant to one or more designated watchstanders. The less complex systems may be identified and covered quickly or relegated to a lower priority to permit greater emphasis on more significant or complex systems.

200.2 COMPONENTS AND COMPONENT PARTS

For learning purposes each system is disassembled into two levels. Systems have components and components have parts. Do not expect to see every item which appears on a parts list to be in the PQS. Only those items which must be understood for operation/maintenance are listed. Normally a number of very broad (overview) systems are disassembled into their components or parts with the big picture as the learning goal. Items listed as components in such a system may then be analyzed as separate systems and broken down into components and parts. Example: the turbogenerators may be listed as a component of the Ship's Service Electrical Distribution system and then later detailed as an individual system for closer study.

200.3 FORMAT

Each system is organized within the following format:

- It lists the references to be used for study and asks you to explain the function of each system.
- It asks for the static facts of what or where the components and component parts are in relation to the system.
- It directs attention to the dynamics of how the component and component parts operate to make the system function.
- It specifies the parameters that must be immediately recalled.
- It requires study of the relationship between the system being studied and other systems or areas.

200.4 HOW TO COMPLETE

The systems you must complete are listed in the Prerequisites section of each watchstation. When you have mastered one or more systems, contact your Qualifier. The Qualifier will give you an oral examination on each system and, if satisfied you have sufficient knowledge of the system, will sign the appropriate system line items. You will be expected to demonstrate through oral or written examination a thorough understanding of each system required for your watchstation.

201 MK 36 DECOY LAUNCHING SYSTEM (DLS) SYSTEM

References:

[a] NAVSEA SW393-A1-MMM-A10/MK 36, Launching System MK 36 MODS 1, 5, 6, 11, 12, 17 thru 19
[b] Ship's Plans and Drawings

201.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the sources of power?
D. What are the modes of operation or control?
E. What are the safety/protective devices for this component/component part?
F. What protection is provided by this component/component part?
G. What are the probable indications if this component fails?
H. What is the effect on system operation if this component fails?

		Questions
201.1.1	Ready-service locker [ref. a, ch. 1; ref. b]	A B
	a. Sun shields	A B
	b. Quick-release latch	A B
	c. Lid storage area	A B
	d. Bimetallic thermometer	A B
	e. Door retainer/stay arm assembly	A B E F G H
	f. Security lock	A B F

_____
(Signature and Date)

.2	MK 137 launcher [ref. a, ch. 1]	A B C D E F G H
	a. Launcher safety switch	A B C D E F G H
	b. Launcher safe monitor light	A B C D E F G H
	c. Cap plug	A B F
	d. Locking clamp assembly	A B F G H
	e. Excitation coil	A B
	f. Support mount	A B
	g. Tube	A B
	h. Junction box	A B C

_____
(Signature and Date)

201 MK 36 DECOY LAUNCHING SYSTEM (DLS) SYSTEM (CONT'D)

		Questions
201.1.3	Control panels MK 164: [ref. a, chs. 1, 2]	
	a. CONTROL indicator	A B C D G H
	b. SAFE TO LOAD/SHIP'S POWER indicator/switch	A B G H
	c. POWER indicator/switch	A B G
	d. ARM indicator/switch	A B G H
	e. LOAD STATUS INDICATOR/FIRING switch	A B D G H
	f. DIMMER switch	A B

_____
(Signature and Date)

201.2 PRINCIPLES OF OPERATION

201.2.1 How do the components work together to achieve the system's function? [ref. a, ch. 2]

.2 Draw a diagram of this system. [ref. a, ch. 1]

_____
(Signature and Date)

201.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions: [ref. a]

A. What are the allowable operating limits?
B. Where are the parameters sensed or monitored?
C. What is the physical location of the indicators?

		Questions
201.3.1	Air temperature [ch. 1]	A B C
.2	Firing voltage [ch. 1, 3]	A B C

_____
(Signature and Date)

201.4 SYSTEM INTERFACE

201.4.1 How does the loss of ship's power affect the operation of this system? [ref. a, ch. 1]

_____
(Signature and Date)

201 MK 36 DECOY LAUNCHING SYSTEM (DLS) SYSTEM (CONT'D)

201.5 SAFETY PRECAUTIONS

201.5.1 What safety precautions must be observed when operating this system? [ref. a, Safety Summary]

201.5.2 What safety precautions must be observed when: [ref. a]

a. Handling [ch. 2]
b. Loading [ch. 2]
c. Firing [Safety Summary]
d. Misfire occurs [ch. 2]

_____
(Signature and Date)

202 MK 52 DECOY LAUNCHING SYSTEM (DLS) SYSTEM

References:

[a] NAVSEA SW393-A2-MMM-010/LS MK 52 MOD 0, Launching System MK 52 MOD 0
[b] Ship's Plans and Drawings

202.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the modes of operation or control?
D. What are the safety/protective devices for this component/component part?
E. What protection is provided by this component/component part?
F. What are the probable indications if this component fails?
G. What is the effect on system operation if this component fails?
H. What is the function of each position?

		Questions
202.1.1	Ready-service locker: [ref. a, ch. 1; ref. b]	
a.	Sun shields	A B
b.	Quick-release latch	A B
c.	Lid storage area	A B
d.	Bimetallic thermometer	A B
e.	Door retainer/stay arm assembly	A B E F G H
f.	Security lock	A B F

_____
(Signature and Date)

.2	MK 137 launcher: [ref. a, ch. 1]	
a.	Launcher safety switch	A B C D E F G H
b.	Launcher safe monitor light	A B C D E F G H
c.	Cap plug	A B F
d.	Locking clamp assembly	A B F H
e.	Excitation coil	A B
f.	Support mount	A B
g.	Tube	A B

_____
(Signature and Date)

202 MK 52 DECOY LAUNCHING SYSTEM (DLS) SYSTEM (CONT'D)

Questions

202.1.3 Control panels MK 194: [ref. a, chs.1, 2]

a.	POWER indicator/switch	A B C D G H
b.	SYSTEM indicator	A B D G H
c.	ARM indicator/switch	A B D G H
d.	LOAD STATUS INDICATOR/FIRING switch	A B D G H
e.	LAMP switch	A B G
f.	Time totalizer	

_____

(Signature and Date)

202.2 PRINCIPLES OF OPERATION

202.2.1 How do the components work together to achieve the system's function? [ref. a, ch. 1]

.2 Draw a diagram of this system. [ref. a, ch. 1; ref. b]

_____

(Signature and Date)

202.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions: [ref. a]

A. What are the allowable operating limits?
B. Where are the parameters sensed or monitored?
C. What is the physical location of the indicators?

Questions

202.3.1 Air temperature [ch. 1] A B C

.2 Firing voltage [chs. 1, 3] A B C

_____

(Signature and Date)

202.4 SYSTEM INTERFACE

202.4.1 How does the loss of ship's power affect the operation of this system? [ref. a, ch. 1]

_____

(Signature and Date)

202 MK 52 DECOY LAUNCHING SYSTEM (DLS) SYSTEM (CONT'D)

202.5 SAFETY PRECAUTIONS

202.5.1 What safety precautions must be observed when operating this system? [ref. a, Safety Summary]

.2 What safety precautions must be observed when:[ref. a]

a. Handling [ch. 2]
b. Loading [ch. 2]
c. Firing [Safety Summary]
d. Misfire occurs [ch. 2]

_____
(Signature and Date)

203 MK 53 DECOY LAUNCHING SYSTEM (DLS) SYSTEM

References:

[a] NAVSEA SW393-CO-MMM-A10/Decoy Launching System MK 53 MODS 1, 3, 4, 5, 6
[b] Ship's Plans and Drawings
[c] TM 3-51.1-00 NULKA Tactical Employment Guide

203.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What are the sources of power?
D. What are the modes of operation or control?
E. What are the safety/protective devices for this component/component part?
F. What protection is provided by this component/component part?
G. What are the probable indications if this component fails?
H. What is the effect on system operation if this component fails?

		Questions
203.1.1	Ready-service locker: [ref. a, ch. 1; ref. b]	
a.	Sun shields	A B
b.	Quick-release latch	A B
c.	Lid storage area	A B
d.	Bimetallic thermometer	A B
e.	Door retainer/stay arm assembly	A B E F G H
f.	Security lock	A B F

_____
(Signature and Date)

.2	MK 137 launcher: [ref. a, ch. 1]	
a.	Launcher safety switch	A B C D E F G H
b.	Launcher safe monitor light	A B C D E F G H
c.	Cap plug	A B F
d.	Locking clamp assembly	A B
e.	Excitation coil	A B
f.	Support mount	A B
g.	EDC Housing assembly	A B
h.	RCSR panels	A B
i.	Junction box	A B C
j.	MK 234 umbilical connector jacks	A B E

203 MK 53 DECOY LAUNCHING SYSTEM (DLS) SYSTEM (CONT'D)

			Questions
203.1.2	k.	High security Tufloc	A B F
	l.	Door linkage slider	A B F
	m.	MK 137 SRBOC launcher tubes	A B

_____
(Signature and Date)

.3 MK 164 control panel: [ref. a, chs. 1, 2]

a.	CONTROL indicator	A B C D G H
b.	SAFE TO LOAD/SHIP'S POWER indicator/switch	A B G H
c.	POWER indicator/switch	A B G
d.	ARM indicator/switch	A B G H
e.	LOAD STATUS INDICATOR/FIRING switch	A B D G H
f.	DIMMER switch	A B G

_____
(Signature and Date)

.4 MK 24 MOD 2 DLP [ref. a, chs. 1, 2; ref. b]

a.	Single Board Computer CCA	A B G H
b.	Input/Output CCA	A B G H
c.	Synchro to Digital CCA	A B G H
d.	Power Supply Module PS1	A B C G H
e.	Power Supply Module PS2	A B C G H
f.	Hex Display	A B C G H
g.	Reset Switch	A B
h.	Nulka Enable Plug	A B D F H

_____
(Signature and Date)

.5 MK 174 MOD 1 PPS [ref. a, chs. 1, 2; ref. b]

a.	Controller CCA	A B C G H
b.	Relay Board CCA	A B C G H
c.	Power Supply	A B C G H
d.	Heatsink Assembly	A B
e.	Firing Capacitors C1 and C2	A B C H
f.	Control Panel	A B
g.	Controller Status LEDs and Hexadecimal Display	A B D G H

_____
(Signature and Date)

203.2 PRINCIPLES OF OPERATION

203.2.1 How do the components work together to achieve the system's function? [ref. a, ch. 3]

.2 Draw a diagram of this system. [ref. a, ch. 2]

_____
(Signature and Date)

203.3 PARAMETERS/OPERATING LIMITS

For the items listed, answer the following questions: [ref. a]

A. What are the allowable operating limits?
B. Where are the parameters sensed or monitored?
C. What is the physical location of the indicators?

		Questions
203.3.1	Air temperature [ch. 1]	A B C
.2	Firing voltage [ch. 1, 2]	A B C
.3	Roll lockout [ref. c]	A B

_____
(Signature and Date)

203.4 SYSTEM INTERFACE

203.4.1 How does the loss of ship's power affect the operation of this system? [ref. a, ch. 1]

_____
(Signature and Date)

.2 How does ship's roll affect the operation of this system? [ref. a, ch. 1]

_____
(Signature and Date)

.3 How does the chaff launcher safe to load switch affect the operation of this system? [ref. a]

_____
(Signature and Date)

.4 How does the Nulka launcher safety key-switch affect the operation of this system? [ref. a]

_____
(Signature and Date)

.5 How does the removal of the Nulka Enable Plug affect the operation of this system? [ref. a]

_____
(Signature and Date)

.6 How does the loss of power to the MK 24 MOD 2 DLP affect the operation of this system? [ref. a]

_____
(Signature and Date)

203.5 SAFETY PRECAUTIONS

203.5.1 What safety precautions must be observed when operating this system? [ref. a, ch. 3]

_____
(Signature and Date)

.2 For MK 214, MK 216, MK 234 and MK 245 rounds, what safety precautions must be observed when: [ref. a]

a. Handling [ch. 2]
b. Loading [ch. 2]
c. Firing [Safety Summary]
d, Unloading [ch. 2]

_____
(Signature and Date)

300 INTRODUCTION TO WATCHSTATIONS

300.1 INTRODUCTION

The Watchstation section of your PQS is where you get a chance to demonstrate to your Qualifier that you can put the knowledge you have gained in the previous sections to use. It allows you to practice the tasks required for your watchstation and to handle abnormal conditions and emergencies. Before starting your assigned tasks, you must complete the prerequisites that pertain to the performance of that particular task. Satisfactory completion of all prerequisites is required prior to achievement of final watchstation qualification.

300.2 FORMAT

Each watchstation in this section contains:

- A FINAL QUALIFICATION PAGE, which is used to obtain the required signatures for approval and recording of Final Qualification.

- PREREQUISITES, which are items that must be certified completed before you can begin qualification for a particular watchstation. Prerequisites may include schools, watchstation qualifications from other PQS books, and fundamentals, systems, or watchstation qualifications from this book. Prior to signing off each prerequisite line item, the Qualifier must verify completion from existing records. Record the date of actual completion, not the sign-off date.

- WATCHSTATION Performance, which is the practical factors portion of your qualification. The performance is broken down as follows:

    Tasks (routine operating tasks that are performed frequently)
    Infrequent Tasks
    Abnormal Conditions
    Emergencies
    Training Watches

If there are multiple watchstations, a QUALIFICATION PROGRESS SUMMARY will appear at the end of the Standard.

300 INTRODUCTION TO WATCHSTATIONS (CONT'D)

300.3 OPERATING PROCEDURES

The PQS deliberately makes no attempt to specify the procedures to be used to complete a task or control or correct a casualty. The only proper sources of this information are the technical manuals, Engineering Operational Sequencing System (EOSS), Naval Air Training and Operating Procedures Standardization (NATOPS) or other policy-making documents prepared for a specific installation or a piece of equipment. Additionally, the level of accuracy required of a trainee may vary from school to school, ship to ship, and squadron to squadron based upon such factors as mission requirements. Thus, proficiency may be confirmed only through demonstrated performance at a level of competency sufficient to satisfy the Commanding Officer.

300.4 DISCUSSION ITEMS

Though actual performance of evolutions is always preferable to observation or discussion, some items listed in each watchstation may be too hazardous or time consuming to perform or simulate. Therefore, you may be required to discuss such items with your Qualifier.

300.5 NUMBERING

Each Final Qualification is assigned both a watchstation number and a NAVEDTRA Final Qualification number. The NAVEDTRA number is to be used for recording qualifications in service and training records.

300.6 HOW TO COMPLETE

After completing the required prerequisites applicable to a particular task, you may perform the task under the supervision of a qualified watchstander. If you satisfactorily perform the task and can explain each step, your Qualifier will sign you off for that task. You may then be required to stand a watch or a number of watches to earn qualification. There are two levels of supervision for this:

- Under Instruction: You will perform the duties and tasks of the watchstation under the direct supervision of a qualified watchstander or supervisor. This is intended to be a one-on-one training situation.
- Under qualified supervision: You will perform the duties and tasks of the watchstation with minor guidance from a qualified watchstander or supervisor. This is intended to allow you to develop proficiency in and operational environment with minimal oversight or have a supervisor close at hand if needed.

After all line items have been completed, your Qualifier will verify Final Qualification by signing and dating the Final Qualification pages.

301 MK 137 LAUNCHER TEAM MEMBER

NAME_____ RATE/RANK_____

This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee's knowledge. Should supervisors *give away* their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual's training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified MK 137 LAUNCHER TEAM MEMBER (NAVEDTRA 43341-E).

RECOMMENDED_____ DATE_____
Supervisor

RECOMMENDED_____ DATE_____
Division Officer

RECOMMENDED_____ DATE_____
Department Head

QUALIFIED_____ DATE_____
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY_____ DATE_____

301 MK 137 LAUNCHER TEAM MEMBER

Estimated completion time: 4 weeks

301.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

301.1.1 Fundamentals From This PQS:

101 Safety Precautions

Completed _____ 2% of Watchstation
(Qualifier and Date)

102 Ordnance Safety

Completed _____ 2% of Watchstation
(Qualifier and Date)

104 MK 36 Decoy Launching System (DLS)

Completed _____ 2% of Watchstation
(Qualifier and Date)

105 MK 52 Decoy Launching System (DLS)

Completed _____ 2% of Watchstation
(Qualifier and Date)

106 MK 53 Decoy Launching System (DLS)

Completed _____ 2% of Watchstation
(Qualifier and Date)

107 Decoys

Completed _____ 2% of Watchstation
(Qualifier and Date)

301 MK 137 LAUNCHER TEAM MEMBER (CONT'D)

301.1.2 Systems From This PQS:

201 MK 36 Decoy Launching System (DLS)

Completed _____ 8% of Watchstation
(Qualifier and Date)

202 MK 52 Decoy Launching System (DLS)

Completed _____ 8% of Watchstation
(Qualifier and Date)

203 MK 53 Decoy Launching System (DLS)

Completed _____ 8% of Watchstation
(Qualifier and Date)

301.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What safety precautions must be observed?
E. Satisfactorily perform this task.

		Questions
301.2.1	Make ready-service rounds available	A B C D E

_____
(Signature and Date)

.2	Prepare launcher	A B C D E

_____
(Signature and Date)

.3	Load launcher (2 times)	A B C D E

_____
(Signature and Date)

_____
(Signature and Date)

301 MK 137 LAUNCHER TEAM MEMBER (CONT'D)

Questions

301.2.4 Unload launcher (2 times) A B C D E

_____
(Signature and Date)

_____
(Signature and Date)

301.2.5 Load MK 137 Mod 7 or Mod10 launcher with Electronic Decoy Cartridge A B C D E

_____
(Signature and Date)

301.2.6 Load MK 137 Mod 7 or Mod10 launcher with Electronic Decoy Cartridge , A B C D E
connect and properly weatherproof EDC Umbilical Cable Connection.

_____
(Signature and Date)

301.2.7 Unload MK 137 Mod 7 or Mod 10 launcher with Electronic Decoy A B C D E
Cartridge

_____
(Signature and Date)

COMPLETED .2 AREA COMPRISES 20% OF WATCHSTATION.

301.3 INFREQUENT TASKS – None to be discussed.

301.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What emergencies or malfunctions may occur if immediate action is not taken?
F. How does this condition affect other operations/equipment/watchstations?
G. What follow-up action is required?
H. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

Questions

301.4.1 Launcher safe monitor light fails to illuminate A B C D E F G H

_____

(Signature and Date)

Questions

301.4.2 Cartridge fails to seat properly A B C D E F G H

_____

(Signature and Date)

COMPLETED .4 AREA COMPRISES 7% OF WATCHSTATION.

301.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What operating limitations are imposed?
D. What other emergencies or malfunctions may occur if immediate action is not taken?
E. How does this emergency affect other operations/equipment/watchstations?
F. What follow-up action is required?
G. Satisfactorily perform or simulate the immediate action for this emergency.

Questions

301.5.1 Misfire A B C D E F G

_____

(Signature and Date)

.2 Damaged or dropped round A B C D E F G

_____

(Signature and Date)

.3 Misfire/Dud of the MK 234 EDC A B C D E F G

_____

(Signature and Date)

COMPLETED .5 AREA COMPRISES 7% OF WATCHSTATION.

301 MK 137 LAUNCHER TEAM MEMBER (CONT'D)

301.6 WATCHES

301.6.1 STAND THE FOLLOWING WATCHES UNDER INSTRUCTION:

MK 137 Launcher Team Member (Condition I) (2 times)

_____

(Signature and Date)

_____

(Signature and Date)

COMPLETED .6 AREA COMPRISES 30% OF WATCHSTATION.

301.7 EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

301.7.1 EXAMINATIONS Pass a written examination

_____

(Signature and Date)

.2 EXAMINATIONS Pass an oral examination board

_____

(Signature and Date)

302 MK 164 BRIDGE LAUNCHER CONTROL PANEL OPERATOR

NAME_____ RATE/RANK_____

This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee's knowledge. Should supervisors *give away* their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual's training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified MK 164 BRIDGE LAUNCHER CONTROL PANEL OPERATOR (NAVEDTRA 43341-E).

RECOMMENDED_____ DATE_____
Supervisor

RECOMMENDED_____ DATE_____
Division Officer

RECOMMENDED_____ DATE_____
Department Head

QUALIFIED_____ DATE_____
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY_____ DATE_____

302 MK 164 BRIDGE LAUNCHER CONTROL PANEL OPERATOR

Estimated completion time: 6 weeks

302.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

302.1.1 Fundamentals From This PQS:

101 Safety Precautions

Completed _____ 2% of Watchstation
(Qualifier and Date)

102 Ordnance Safety

Completed _____ 2% of Watchstation
(Qualifier and Date)

103 Communications

Completed _____ 2% of Watchstation
(Qualifier and Date)

104 MK 36 Decoy Launching System (DLS)

Completed _____ 2% of Watchstation
(Qualifier and Date)

106 MK 53 Decoy Launching System (DLS)

Completed _____ 2% of Watchstation
(Qualifier and Date)

107 Decoys

Completed _____ 2% of Watchstation
(Qualifier and Date)

302 MK 164 BRIDGE LAUNCHER CONTROL PANEL OPERATOR (CONT'D)

302.1.2 SYSTEMS FROM THIS PQS:

201 MK 36 Decoy Launching System (DLS)

Completed _____ 15% of Watchstation
(Qualifier and Date)

203 MK 53 Decoy Launching System (DLS)

Completed _____ 15% of Watchstation
(Qualifier and Date)

302.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform this task.

Questions

302.2.1 Energize equipment (2 times) A B C E F

_____
(Signature and Date)

_____
(Signature and Date)

.2 Establish communications (2 times) A B C D F

_____
(Signature and Date)

_____
(Signature and Date)

.3 Monitor control panel during launcher loading/unloading (2 times) A B C D F

_____
(Signature and Date)

_____
(Signature and Date)

Questions

302.2.4 De-energize equipment (2 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .2 AREA COMPRISES 10% OF WATCHSTATION.

302.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform or simulate this infrequent task.

Questions

302.3.1 Launch decoys (3 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .3 AREA COMPRISES 6% OF WATCHSTATION.

302.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. How does this condition affect other operations/equipment/watchstations?
F. What follow-up action is required?
G. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

302 MK 164 BRIDGE LAUNCHER CONTROL PANEL OPERATOR (CONT'D)

Questions

302.4.1 Loss of communications (2 times) A B C D E F G

_____
(Signature and Date)

_____
(Signature and Date)

.2 SAFE TO LOAD indicator fails to illuminate (2 times) A B C D E F G

_____
(Signature and Date)

_____
(Signature and Date)

.3 POWER ON indicator fails to illuminate (2 times) A B C D E F G

_____
(Signature and Date)

_____
(Signature and Date)

.4 ARM indicator fails to illuminate (2 times) A B C D E F G

_____
(Signature and Date)

_____
(Signature and Date)

.5 LOAD STATUS indicator fails to switch (2 times) A B C D E F G

_____
(Signature and Date)

_____
(Signature and Date)

Questions

.6 CONTROL indicator fails to switch (2 times) A B C D E F G

_____
(Signature and Date)

_____
(Signature and Date)

.7 Loss of ship's power (2 times) A B C D E F G

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .4 AREA COMPRISES 14% OF WATCHSTATION.

302.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. How does this emergency affect other operations/equipment/watchstations?
F. Satisfactorily perform or simulate the immediate action for this emergency.

Questions

302.5.1 Decoys fail to launch (2 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

302 MK 164 BRIDGE LAUNCHER CONTROL PANEL OPERATOR (CONT'D)

Questions

302.5.2 Misfire (2 times) A B C D E F

_____

(Signature and Date)

_____

(Signature and Date)

COMPLETED .5 AREA COMPRISES 8% OF WATCHSTATION.

302.6 WATCHES

302.6.1 STAND THE FOLLOWING WATCHES UNDER INSTRUCTION:

MK 164 Bridge Launcher Control Panel Operator (3 times)

_____

(Signature and Date)

_____

(Signature and Date)

_____

(Signature and Date)

COMPLETED .6 AREA COMPRISES 20% OF WATCHSTATION.

302.7 EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

302.7.1 EXAMINATIONS Pass a written examination

_____

(Signature and Date)

.2 EXAMINATIONS Pass an oral examination board

_____

(Signature and Date

303 MK 194 CONTROL PANEL OPERATOR

NAME_____ RATE/RANK_____

This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee's knowledge. Should supervisors *give away* their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual's training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified MK 194 CONTROL PANEL OPERATOR (NAVEDTRA 43341-E).

RECOMMENDED_____ DATE_____
Supervisor

RECOMMENDED_____ DATE_____
Division Officer

RECOMMENDED_____ DATE_____
Department Head

QUALIFIED_____ DATE_____
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY_____ DATE_____

303 MK 194 CONTROL PANEL OPERATOR

Estimated completion time: 4 weeks

303.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

303.1.1 Fundamentals From This PQS:

101 Safety Precautions

Completed _____ 2% of Watchstation
(Qualifier and Date)

102 Ordnance Safety

Completed _____ 2% of Watchstation
(Qualifier and Date)

103 Communications

Completed _____ 2% of Watchstation
(Qualifier and Date)

105 MK 52 Decoy Launching System (DLS)

Completed _____ 2% of Watchstation
(Qualifier and Date)

107 Decoys

Completed _____ 2% of Watchstation
(Qualifier and Date)

.2 SYSTEMS FROM THIS PQS:

202 MK 52 Decoy Launching System (DLS)

Completed _____ 10% of Watchstation
(Qualifier and Date)

303 MK 194 CONTROL PANEL OPERATOR (CONT'D)

303.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform this task.

Questions

303.2.1 Establish communications (2 times) A B C D F

_____
(Signature and Date)

_____
(Signature and Date)

.2 Energize equipment (2 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

.3 Conduct functional checkout (2 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

.4 Monitor control panel during launcher loading/unloading (2 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

303 MK 194 CONTROL PANEL OPERATOR (CONT'D)

Questions

303.2.5 De-energize equipment (2 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .2 AREA COMPRISES 18% OF WATCHSTATION.

303.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform or simulate this infrequent task.

Questions

303.3.1 Launch decoys (3 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .3 AREA COMPRISES 6% OF WATCHSTATION.

303 MK 194 CONTROL PANEL OPERATOR (CONT'D)

303.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. How does this condition affect other operations/equipment/watchstations?
F. What follow-up action is required?
G. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

Questions

303.4.1 Loss of communications (2 times) A B C D E F G

_____
(Signature and Date)

_____
(Signature and Date)

.2 SAFE TO LOAD indicator fails to illuminate (2 times) A B C D E F G

_____
(Signature and Date)

_____
(Signature and Date)

.3 POWER ON indicator fails to illuminate (2 times) A B C D E F G

_____
(Signature and Date)

_____
(Signature and Date)

.4 ARM indicator fails to illuminate (2 times) A B C D E F G

_____
(Signature and Date)

_____
(Signature and Date)

303 MK 194 CONTROL PANEL OPERATOR (CONT'D)

Questions

303.4.5 LOAD STATUS indicators/firing switches fail to indicate proper status (2 times) A B C D E F G

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .4 AREA COMPRISES 18% OF WATCHSTATION.

303.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. How does this emergency affect other operations/equipment/watchstations?
F. Satisfactorily perform or simulate the immediate action for this emergency.

Questions

303.5.1 Loss of power (2 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

.2 Misfire (2 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .5 AREA COMPRISES 8% OF WATCHSTATION.

303 MK 194 CONTROL PANEL OPERATOR (CONT'D)

303.6 WATCHES

303.6.1 STAND THE FOLLOWING WATCHES UNDER INSTRUCTION:

MK 194 Control Panel Operator (3 times)

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .6 AREA COMPRISES 30% OF WATCHSTATION.

303.7 EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

303.7.1 EXAMINATIONS Pass a written examination

_____
(Signature and Date)

.2 EXAMINATIONS Pass an oral examination board

_____
(Signature and Date)

304 MK 137 LAUNCHER TEAM LEADER

NAME_____ RATE/RANK_____

This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee's knowledge. Should supervisors *give away* their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual's training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified MK 137 LAUNCHER TEAM LEADER (NAVEDTRA 43341-E).

RECOMMENDED_____ DATE_____
Supervisor

RECOMMENDED_____ DATE_____
Division Officer

RECOMMENDED_____ DATE_____
Department Head

QUALIFIED_____ DATE_____
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY_____ DATE_____

304 MK 137 LAUNCHER TEAM LEADER

Estimated completion time: 6 weeks

304.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

304.1.1 WATCHSTATIONS FROM THIS PQS:

301 MK 137 Launcher Team Member

Completed _____
(Qualifier and Date)

302 MK 164 Control Panel Operator

Completed _____
(Qualifier and Date)

303 MK 194 Control Panel Operator

Completed _____
(Qualifier and Date)

304.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform this task.

Questions

304.2.1 Brief team members on assignments and safety precautions (2 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

304 MK 137 LAUNCHER TEAM LEADER (CONT'D)

Questions

304.2.2 Establish communications (2 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

.3 Place launcher in SAFE condition (2 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

.4 Conduct functional checkout (2 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

.5 Verify availability of ready-service rounds (2 times) A B D E F

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .2 AREA COMPRISES 30% OF WATCHSTATION.

304.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What conditions require this infrequent task?
D. Satisfactorily perform or simulate this infrequent task.

304 MK 137 LAUNCHER TEAM LEADER (CONT'D)

		Questions
304.3.1	Reposition barrel extension (2 times)	A B C D

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .3 AREA COMPRISES 10% OF WATCHSTATION.

304.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What are the probable causes?
D. What operating limitations are imposed?
E. What emergencies or malfunctions may occur if immediate action is not taken?
F. How does this condition affect other operations/equipment/watchstations?
G. What follow-up action is required?
H. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

		Questions
304.4.1	Launcher safe monitor light fails to illuminate	A B C D E F G H

_____
(Signature and Date)

.2	Cartridge fails to seat properly	A B C D E F G H

_____
(Signature and Date)

COMPLETED .4 AREA COMPRISES 10% OF WATCHSTATION.

304 MK 137 LAUNCHER TEAM LEADER (CONT'D)

304.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What operating limitations are imposed?
D. What other emergencies or malfunctions may occur if immediate action is not taken?
E. How does this emergency affect other operations/equipment/watchstations?
F. What follow-up action is required?
G. Satisfactorily perform or simulate the immediate action for this emergency.

		Questions
304.5.1	Misfire	A B C D E F G

_____
(Signature and Date)

.2	Damaged or dropped round	A B C D E F G

_____
(Signature and Date)

3. Misfire/Dud of the MK 234 EDC

_____
(Signature and Date)

COMPLETED .5 AREA COMPRISES 10% OF WATCHSTATION.

304.6 WATCHES

304.6.1 STAND THE FOLLOWING WATCHES UNDER INSTRUCTION:

MK 137 Launcher Team Leader (3 times)

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .6 AREA COMPRISES 40% OF WATCHSTATION.

304 MK 137 LAUNCHER TEAM LEADER (CONT'D)

304.7 EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

304.7.1 EXAMINATIONS Pass a written examination

_____
(Signature and Date)

.2 EXAMINATIONS Pass an oral examination board

_____
(Signature and Date)

305 SURFACE DECOY LAUNCHING SYSTEM (DLS) SAFETY OBSERVER

NAME_____ RATE/RANK_____

This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee's knowledge. Should supervisors *give away* their signatures, unnecessary difficulties can be expected in future routine operations.

A copy of this completed page shall be kept in the individual's training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified SURFACE DECOY LAUNCHING SYSTEM (DLS) SAFETY OBSERVER (NAVEDTRA 43341-E).

RECOMMENDED_____ DATE_____
Supervisor

RECOMMENDED_____ DATE_____
Division Officer

RECOMMENDED_____ DATE_____
Department Head

QUALIFIED_____ DATE_____
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY_____ DATE_____

305 SURFACE DECOY LAUNCHING SYSTEM (DLS) SAFETY OBSERVER

Estimated completion time: 6 weeks

305.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT SHALL BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

305.1.1 Fundamentals From This PQS:

101 Safety Precautions

Completed _____ 2% of Watchstation
(Qualifier and Date)

102 Ordnance Safety

Completed _____ 2% of Watchstation
(Qualifier and Date)

104 MK 36 Decoy Launching System (DLS)

Completed _____ 2% of Watchstation
(Qualifier and Date)

105 MK 52 Decoy Launching System (DLS)

Completed _____ 2% of Watchstation
(Qualifier and Date)

106 MK 53 Decoy Launching System (DLS)

Completed _____ 2% of Watchstation
(Qualifier and Date)

305 SURFACE DECOY LAUNCHING SYSTEM (DLS) SAFETY OBSERVER (CONT'D)

305.2 TASKS

For the tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform this task.

		Questions
305.2.1	Conduct safety lecture for loading/unloading of launchers (2 times)	A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

.2	Conduct safety lecture for onload/offload of decoys	A B C D E F

_____
(Signature and Date)

.3	Inspect decoy handling routes prior to handling evolutions (3 times)	A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

.4	Observe decoy handling detail during handling evolutions (3 times)	A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .2 AREA COMPRISES 10% OF WATCHSTATION.

305 SURFACE DECOY LAUNCHING SYSTEM (DLS) SAFETY OBSERVER (CONT'D)

305.2.4 Observe MK 234 EDC handling detail during handling evolutions

_____
(Signature and Date)

305.3 INFREQUENT TASKS

For the infrequent tasks listed below:

A. What are the steps of this procedure?
B. What are the reasons for each step?
C. What control/coordination is required?
D. What means of communications are used?
E. What safety precautions must be observed?
F. Satisfactorily perform or simulate this infrequent task.

Questions

305.3.1 Conduct emergency action procedures (3 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

.2 Conduct emergency disposal procedures (3 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .3 AREA COMPRISES 10% OF WATCHSTATION.

305 SURFACE DECOY LAUNCHING SYSTEM (DLS) SAFETY OBSERVER (CONT'D)

305.4 ABNORMAL CONDITIONS

For the abnormal conditions listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What operating limitations are imposed?
D. What emergencies or malfunctions may occur if immediate action is not taken?
E. How does this condition affect other operations/equipment/watchstations?
F. Satisfactorily perform or simulate the corrective/immediate action for this abnormal condition.

		Questions
305.4.1	High ambient temperature (3 times)	A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

.2	Improper handling of decoys (3 times)	B D F

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

.3	Personnel fatigue (3 times)	B D F

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

305 SURFACE DECOY LAUNCHING SYSTEM (DLS) SAFETY OBSERVER (CONT'D)

Questions

305.4.4 Power failure (3 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

.5 Inclement weather (3 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

.6 Equipment failure (3 times) A B C D E F

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .4 AREA COMPRISES 20% OF WATCHSTATION.

305 SURFACE DECOY LAUNCHING SYSTEM (DLS) SAFETY OBSERVER (CONT'D)

305.5 EMERGENCIES

For the emergencies listed below:

A. What indications and alarms are received?
B. What immediate action is required?
C. What operating limitations are imposed?
D. What other emergencies or malfunctions may occur if immediate action is not taken?
E. How does this emergency affect other operations/equipment/watchstations?
F. What follow-up action is required?
G. What parameters are monitored?
H. Satisfactorily perform or simulate the immediate action for this emergency.

		Questions
305.5.1	Dropped decoy (3 times)	A B C D E F G H

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

.2	Fire (3 times)	A B C D E F G H

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

.3	Personnel casualties (3 times)	A B C D E F G H

_____
(Signature and Date)

_____
(Signature and Date)

_____
(Signature and Date)

COMPLETED .5 AREA COMPRISES 10% OF WATCHSTATION.

305 SURFACE DECOY LAUNCHING SYSTEM (DLS) SAFETY OBSERVER (CONT'D)

305.6 WATCHES

305.6.1 STAND THE FOLLOWING WATCHES UNDER INSTRUCTION:

Surface Decoy Launching System (DLS) Safety Observer (Decoy Load/Unload) (2 times)

_____
(Signature and Date)

_____
(Signature and Date)

Surface Decoy Launching System (DLS) Safety Observer (Decoy Onload/Offload) (2 times)

_____
(Signature and Date)

_____
(Signature and Date)

Surface Decoy Launching System (DLS) Safety Observer for the MK 234 EDC (Decoy Onload/Offload)

_____
(Signature and Date)

COMPLETED .6 AREA COMPRISES 40% OF WATCHSTATION.

305.7 EXAMINATIONS (OPTIONAL EXCEPT AS REQUIRED BY TYCOM/ISIC, ETC.)

305.7.1 EXAMINATIONS Pass a written examination

_____
(Signature and Date)

.2 EXAMINATIONS Pass an oral examination board

_____
(Signature and Date)

QUALIFICATION PROGRESS SUMMARY FOR DECOY LAUNCHING SYSTEM (DLS)

NAME_____ RATE/RANK_____

This qualification progress summary is used to track the progress of a trainee in the watchstations for this PQS and ensure awareness of remaining tasks. It should be kept by the individual or in the individual's training jacket and updated with an appropriate signature (Training Petty Officer, Division Officer, Senior Watch Officer, etc.) as watchstations are completed.

---

301 MK 137 LAUNCHER MEMBER

Completed _____ Date_____
(Signature)

---

302 MK 164 BRIDGE LAUNCHER CONTROL PANEL OPERATOR

Completed _____ Date_____
(Signature)

---

303 MK 194 CONTROL PANEL OPERATOR

Completed _____ Date_____
(Signature)

---

304 MK 137 LAUNCHER TEAM LEADER

Completed _____ Date_____
(Signature)

---

305 SURFACE DECOY LAUNCHING SYSTEM (DLS) SAFETY OBSERVER

Completed _____ Date_____
(Signature)

LIST OF REFERENCES USED IN THIS PQS

COMNAVSURFPAC/LANTINST C3516, Combat Systems Doctrine
NAVEDTRA 14325, Basic Military Requirements
NAVSEA OP 2211, Surface Rockets
NAVSEA OP 4, Ammunition Afloat
NAVSEA OP3565, Electromagnetic Radiation Hazards
NAVSEA SW393-A1-MMM-A10/MK 36, Launching System MK 36 MODS 1, 5, 6, 11, 12, 17 through 19
NAVSEA SW393-A2-MMM-010/LS MK 52 MOD 0, Launching System MK 52 MOD 0
NAVSEA SW393-CO-MMM-A10/Decoy Launching System MK 53 MODS 1, 3, 4, 5 and 6
NSTM S9086-KC-STM-010/CH-300, Electric Plant General
NSTM S9086-S3-STM-010/CH-555V1R9, Procedures for Fighting an Electrical Equipment Fire
OPNAVINST 3500.39B, Operational Risk Management
OPNAVINST 5100.19D, Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat
S0404-AD-URM-010/TUM, Tag-Out User's Manual (TUM)
Ship's Combat Systems Doctrine
Ship's Drawings
Ship's Information Book
Ship's Plans and Drawings
TM 3-51.1-00 NULKA Tactical Employment Guide

PERSONNEL QUALIFICATION STANDARD
Feedback Form for NAVEDTRA 43341-E

From_____ Date_____

Via_____ Date_____
Department Head

Activity _____

Mailing Address_____

Email Address _____ DSN_____

PQS Title_____ NAVEDTRA_____

Section Affected_____

Page Number(s)_____

For faster response, you may email your feedback at: https://pqs.cnet.navy.mil.

Remarks/Recommendations (Use additional sheets if necessary):

(FOLD HERE)

DEPARTMENT OF THE NAVY

OFFICIAL BUSINESS

COMMANDING OFFICER
Center for Information Dominance
Corry Station
640 Roberts Avenue
Pensacola, FL 32511-5138

(FOLD HERE)